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Determinants of Self-employment Decision on West Shoa Zone, Oromia Region, Ethiopia, East Africa

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Abstract

Self-employment and Entrepreneurship are considered as being major means for development, employment and wealth creation and, therefore, gaining an increasing attention from governments and policy makers. However, very little is known about what factors determine self-employment decisions of individuals in the study area. Therefore, the main objective of this study is to investigate the various determinants of self-employment decision using the survey data collected from a total of 242 randomly selected respondents (147 self-employed and 95 paid employed) from four towns of West Shoa Zone, Oromia Region, Ethiopia. The study employed Logistic Regression technique to estimate the determinants of self-employment. The study came with the finding that age of the respondents, educational attainment, household size, having self-employed parent, inheritance, and access to credit variables have significant and positive influences on the decision to participate in self-employment. On the other hand, age squared of the respondents and access to paid employment affects self-employment status negatively and significantly. Based on the results and discussions, study suggests that government organization and other development practitioners who are concerned with unemployment reduction and poverty alleviation through the promotion of self-employment need to take these determining factors in to account to achieve better outcome and enhance the self-employment and entrepreneurship activities in the study area and in the country in general.

Keywords: Self-Employment; determinants; Logistic Regression; Ethiopia.

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1. Introduction

Entrepreneurship and Self-employment are important drivers of economic growth and development of developing countries. Entrepreneurship in most developed countries and all developing ones has been considered as the most basic source of development [21]. Self-employment has captured the attention of both scholars and policy makers during the last few decades. This is due to the growing need for entrepreneurs who accelerate economic development through generating new ideas and converting them into profitable ventures. Self-employment is the status of working for oneself through running one's own business instead of for an employer. According to [18], all self-employed people are not necessarily entrepreneurs.

Self-employment is an important element for any country, as it increases competition, promotes the effective use of resources and generates new jobs [13]. Self-employment and self-employed individuals are meeting our economic needs through creating thousands of new businesses each year. Self-employment can be boosted and grants all its individual and country level benefits when more number of individuals move in to creating and owning their own businesses. This process requires an individual choice of self-employment over wage or salary employment by taking in to account its relevance for individual's life in different aspects. Choosing self-employment as an occupational option offers critical importance for individual's life and economic wellbeing. The general roles of self-employment in the society can be expressed in terms of job creation, promotion of free enterprise, promotion of healthy competition, generation of wealth, in distributing of prosperity, ensuring innovation and creativity, improving social and community conditions and in promoting growth [19].

Opting for self-employment, to an individual, as an occupation alternative can create opportunities for him/her and become earning sources instead of looking for employment opportunities from employer organizations. It also brings independence, offers higher financial returns, and improves the living standards of an individual [6], create new employment opportunities [17], high involvement in innovative activity; spread the creation of knowledge and economic growth [3]. Moreover, unlike employed workers who earn wages independent of their entrepreneurial ability, the self-employed receive earnings that increase according to their entrepreneurial ability [25], and get support from government via access to finance, training, & networks of contacts.

Now days, Ethiopia is one of the rapidly growing economy/country in terms of economic development. It is the second most populous country in Africa having more than 96 million and experienced the highest population growth rate with a rate of 2.89% annually [5]. Despite some improvements in recent years, unemployment continues to be serious social problems in Ethiopia a result of rapid population and labor force growth and limited employment generation capacity of the modern industrial sector of the economy [22]. Compared to the number of trained people, it is observed that the degree and rate of businesses, industries and organizations are lagging behind to create job opportunities for millions of un-employed and under employed. Beside this, due to poor awareness and understanding about self-employment and its financial returns, most people are waiting for employment opportunities at government and other hiring organizations. In fact, having a large number of unemployed and under employed will put pressure on the government where the economy couldn't absorb this huge number of people. This might have strong implication towards the politics and economic well beings of the society. Thus it will lead the active age group of the people to dependency, upraising, conflict and migration. It

is also important to note that the evidence from countries with different level of development and under different economic circumstances is necessary in providing more insights about which factors influence the decision to become self-employed.

Basically, the concept, understanding, applicability and effects of self-employment determinants might be different in different contexts. Most of the studies that have been undertaken mainly focused on the situation that determines self-employment decision in developed countries. However, these identified determinant factors in developed countries might not have the same effect in the contexts of developing countries. Thus, with this broad aim, the study investigate the economic, demographic, social cultural factors and personal traits that determine self-employment decision, that can similarly be adopted and implemented in other developing countries. In addition to this, identifying determinants of self-employment in the study area will help as an ingredient for concerned bodies particularly, policy makers and development practitioners who work for the improvement of wellbeing of the society, and help to conduct various trainings and awareness creation programs towards self-employment schemes which can in turn promote entrepreneurship. These and others related factors led the researchers to undertake an in depth study on the aforementioned research topic.

Besides, very little is known about what factors are determining the self-employment decisions of individuals in West Shoa Zone, Oromia Region. [10] has studied the determinants of self-employment focusing mostly on demographic variables using a panel data. However, it lacks comprehensiveness to embrace most relevant variables such as personality trait, socio cultural background, and economic factors, which could have significant effect on self-employment decision of individuals. Therefore, this paper examines the factors that determine individual's decision to engage in self-employment in selected towns of West Shoa, Oromia region state in Ethiopian context through addressing the following research questions: What is the employment status in the study area? and What are the factors affecting self-employment decision in the study area?

The general objective of the study is identifying determinant factors of self-employment decision in West Shoa Zone, selected Towns. Specifically the study attempts:

- To assess the status of self-employment in West Shoa Zone selected towns
- To describe factors in self-employment decision in the study area
- To examine the determinant factors in self-employment decision in the study area

2. Literature Review

According to [18], all self-employed people are not necessarily entrepreneurs. People in self-employment are employers of themselves and sometimes of others [25]. For the purpose of this study the key terms are defined as: *Self-employment*: is the status of working for oneself through running one's own business instead of for an employer. *Paid employment*: is a status of working for employer organizations with fixed wage/salary payment. *Self-employment decision*: is the process of choosing self-employment over the wage/salary employment.

The independent variables expected to have association with self-employment . Although factors which could influence self-employment decision of individuals are numerous, this study has focused only on few selected

personality trait, demographic characteristics and economic factors. Accordingly, eleventh independent variables were selected based on available literature and hypothesized. Gender of the respondent [8, 26], Age of the individual [15,19], Age squared (a proxy for old ages) [2], Marital status ([15], Educational Achievement [10], Household Size [8], Self-employed parents[1], Presence of Household Assets/inheritance [11], Access to credit [12,15], Access to paid employment [27]; and Risk Tolerance [12] may influence self-employment decision of individuals in the study area.

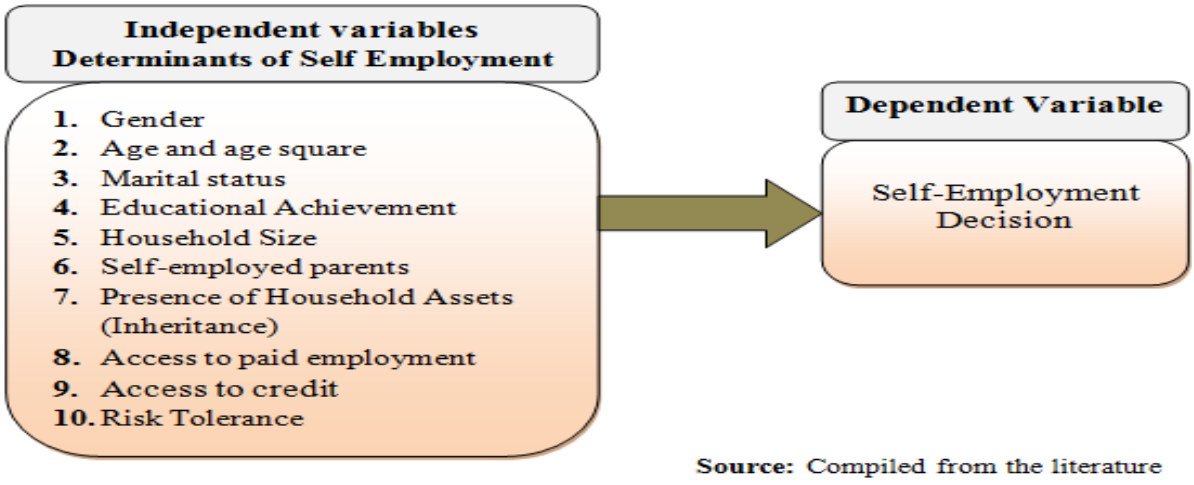

Figure 1: Conceptual Framework of the study

2.1. Hypothesis of the study

The associated hypotheses of the study with respect to each regresses are developed as below from previous empirical studies:

H1: Demographic characteristics (Gender, Age, Marital status, Education, and Household size) are significantly affects the self-employment decision of individuals.

H2: Economic factors like Access to credit, presence of household assets and Access to paid employment have significant effects on the self-employment decision of individuals.

H3: Presence of (growing at) self-employed parents has significant effects on the self-employment decision of individuals.

H4: The risk tolerance ability of an individual significantly influences his/her decision to become self-employed.

3. Materials and Methods

The study conducted at selected towns of West Shoa Zone of the Oromia regional state, Ethiopia. Primary and secondary data were the main source of data in this study. A cross sectional field survey was adopted in order to

obtain the required information in the study area. The primary and secondary source of data involves information from sample respondents and extensive literature reviews from different report and publications that relates to self-employment s. Primary data was collected in order to get the actual information on self-employment in the study area. In order to obtain these data, respondent interview was conducted using structured questionnaire. The interview was conducted to sample respondents of both in self-employment and paid employment. Secondary data was obtained through extensive literature review from various local and international reports and publications. The documents which were reviewed involve journals, books, official reports and previous researches.

3.1. Sampling Techniques

A purposive sampling technique was used to identify the four study areas, namely Ambo, Ginchi, Gedo and Bako towns. The criteria employed included presence of a significant number of economic activities and geographic location aspects. A random sampling method was applied in order to select respondents for interviews in the sample towns. The interviewed respondents involve those which are engaging and not engaging in self-employment s. These respondents include individuals at business enterprise, banks as well as employees of woreda sector offices in the selected study areas. The sample size aimed at having a representative sample from these sampled four towns. A total of 242 respondents (147 respondents were identified as self-employed and 95 as paid employed) were interviewed 84 from Ambo, 65 from Bako, 50 from Ginch and 43 from Gedo towns.

3.2. Methods of Data Analysis

To address the stated objectives of this study, both statistical tools and econometric analysis were used. Descriptive data analysis like frequencies, percentage, mean values, etc was employed using statistical tools (descriptive statistic, t-test, chi-square) to summarize the demographic and socioeconomic characteristics and other relevant characteristic of respondents. Under the econometric model of data analysis, the study employed logit model to examine determinants of self-employment in the study area.

3.3. Model Specification

There are various factors (personal trait, background and demographic characteristics and economic factors) that determine an individual decision to be a wage employed or self-employed worker. Hence, using the following general function $Y_i = f(X_1, X_2, X_3 \ldots, X_n)$. Where, Y_i shows the labor force participation decision as self-employed worker. Y_i is equal to ''1'' if a worker decides to be self-employed and equal to zero, otherwise. Following [4], an index function, SE_j^* may be defined that depends on a vector of independent variables X_j. These variables decide whether an individual who wishes to work in self-employment . While, SE_j^* is not observed practically, only categorical variable SE is observed which is defined as:

$$SE = 1 \qquad if \qquad SE^*_j > 0$$

$SE = 0 \qquad Otherwise$

The probability of finding the self-employment is then

$$Prob\ (SE_j = 1) Prob(w_j > -\beta X_j) = 1 - F(\beta X_j)$$

Wher F is the cumulative distribution function for w. it is assumed that w_i is normally distributed with mean zero$(i.e.\ IN\ (0, \sigma^2))$. The dependent variable in the analysis is binary or latent variable $''SE''$. Regression models in which the outcome variable is dichotomous can be estimated by linear probability model, logit or probit models. According to [14], a logistic distribution has got advantage over the others in the analysis of dichotomous outcome variable in that it is extremely flexible and easily used model from mathematical point of view and results in meaningful interpretation. Therefore, in order to explain the dichotomous dependent variable, we used the logit model. The logit model assumes the following cumulative probability density function.

$$SE = \frac{1}{1+ e^{-(\beta X_j)}} \quad \text{.....} \quad (5)$$

Where, SE is the probability that a person participation in the self-employed labour market, ''e'' is the exponential value. β is a row vector of parameters and X_j is the column of the variable. With the logit model, the natural log of the odds ratio of self-employment to wage/salary employment $ln\left(\frac{SE}{1-SE}\right)$ is expressed as a linear function of independent variables, such as;

$$ln\left(\frac{SE}{1-SE}\right) = \beta X_j \quad \text{.....} \quad (6)$$

Therefore, the coefficients in the logit model register the effect on the log odds of a little change in the independent variables. The general model specified above can be used as a guiding paradigm. Based on the theoretical rationale; the operational model consists on the variables which are supplied by the data.

The operational model of self-employment for estimation is outlined in the following equations.

$$\mathbf{SE} = \boldsymbol{\beta_o} + \boldsymbol{\beta_1}\mathbf{gen} + \boldsymbol{\beta_2}\mathbf{age} + \boldsymbol{\beta_3}\mathbf{agesqu} + \boldsymbol{\beta_4}\mathbf{marts} + \boldsymbol{\beta_5}\mathbf{educ1} + \boldsymbol{\beta_6}\mathbf{educ2} + \boldsymbol{\beta_7}\mathbf{educ3} + \boldsymbol{\beta_8}\mathbf{hsize}$$

$$+\boldsymbol{\beta_9}\mathbf{paroccp} + \boldsymbol{\beta_{10}}\mathbf{inheritance} + \boldsymbol{\beta_{11}}\mathbf{accpemp} + \boldsymbol{\beta_{12}}\mathbf{acccredit} + \boldsymbol{\beta_{13}}\mathbf{riskt} + \boldsymbol{\varepsilon_i}$$

The dependent Variable is a dichotomous individual employment status (SE), taking a value of 1 if individual is self-employed and 0 if the individual is paid employed.

The independent variables expected to have association with self-employment participation decision were selected based on available literature includes: gender, age, marital status, educational achievement, household size, self-employed parents, presence of household assets (inheritance), access to paid employment, access to credit and risk tolerance. The definition and measurement of the variables are presented in Table 1.

Table 1: Codes, definition and expected sign of the explanatory variables

Variable	Definition	Sign (+/-
Dependant Variable		
SE	1 if the respondent is self-employed, 0 paid employed	
Explanatory Variables		
Gen	1 if the respondent is male, 0 otherwise	+
Age	Continuous variable refers to the age of the respondent	+
Agesqu	Continuous variable, square of the respondent's age	-
Marts	1 if the respondent is married, 0 otherwise	+
educ1	1 if the respondent is up to primary school complete, 0 otherwise	+
educ2	1 if the respondent is up to secondary school complete, 0 otherwise	+
educ3	1 if the respondent is up to tertiary school complete, 0 otherwise	+
Hsize	Continuous variable, Number of family members in a household	+
Paroccp	1 if the respondent's parent participates in self-employment activities, otherwise	+
inheritance	1 if the respondent possess household assets in any form, 0 otherwise	+
Accpemp	1 if respondent has access to paid employment, 0 otherwise	-
Accredit	1 if respondent with access to credit, 0 otherwise	+
Riskt	1 if respondent is risk tolerance, 0 otherwise	+

Source: Own compilation from literature

4. Results and Discussions

4.1. Descriptive statistical results

This section presents the descriptive results of the demographic and socio-economic characteristics of sample respondents and the associations between self-employment and some of its demographic and socio-economic determinant factors. Of the total sample respondents interviewed 147 (60.74%) were self-employed and 95 (39.26%) were paid-employed.

4.2. Socio-Demographic Characteristics of the respondents

As mentioned in the previous part, respondent demographic and socioeconomic characteristics are among the major determinants of self-employment . Accordingly, gender of the respondent, age of the respondent, marital status, educational level and household size are addressed. Moreover, parent participation in self-employment , inheritance, access to paid employment, access to credit and risk tolerance of respondent are also other major variables described below. As shown in Table 2, out of 242 sampled respondents, 65.70 percent were male and 34.30 percent were female respondents. The result in Table 2 further indicated that 60 percent of paid employed respondents were male whereas, the corresponding figure for female respondents was 40 percent. Male respondents comprise 69.38 percent of self-employed and the remaining 30.62 percent were female. However,

the chi-square test showed that there was no a systematic association between self-employment decision and gender of respondent.

Table 2: Sample respondents by gender

Gender	Self-employed (147)		Paid employed (95)		Total (242)		χ^2 -value
	Frequency	Percent	Frequency	Percent	Frequency	Percent	
Male	102	69.39	57	60	159	65.70	2.257
Female	45	30.61	38	40	83	34.30	

Source: Compute from own survey, 2016.

Distribution of the total sampled respondents by marital status as shown in Table 3 indicates that single, widowed divorced and married respondent accounted for about 61.57, 0.41, 2.07 and 35.95 percent, respectively. This shows that most of the sampled household heads in the study area are married (61.57) followed by single (35.95%). However, the chi-square (X^2) test revealed that that there was no a systematic association between self-employment decision and marital status of respondent.

Table 3: Sample respondents by marital status

Marital Status	Self-employed (147)		Paid employed (95)		Total (242)		χ^2 -value
	Frequency	Percent	Frequency	Percent	Frequency	Percent	
Married	105	71.43	44	46.32	149	61.57	
Widowed	0	0.00	1	1.05	1	0.41	
Divorced	3	2.04	2	2.11	5	2.07	16.7
Single	39	26.53	48	50.53	87	35.95	

Source: compute from own survey, 2016.

Table 4 shows that the mean age of the total sampled respondents was found to be 36.25 years with standard deviation of 9.84 years. The mean age of self-employed was 38.48 years and that of paid employed was 32.82 years. The t-test revealed that the mean age of respondents was significantly different at 1% probability level between self-employed and paid employed respondents. This implied as the age of household head increases, the probability of a respondent to be self-employed increases. Besides, the mean square of respondents' age of the total sample respondents was found to be 1410.93 with standard deviation of 814.23. The t-test revealed that the mean square of respondents' age was significantly different at 1% probability level between self-employed and paid-employed respondents.

The mean household size in adult equivalent was found to be 3.54 and 2.19 for self-employed and paid employed respondents respectively and their mean difference was 1.35. The overall mean household size for sampled respondents was 3 with standard deviation of 1.98. The statistical analysis showed significant difference in mean household size at less than 1 percent probability level between self-employed and paid

employed sample respondents groups.

Table 4: Sample respondents by age and household size

Variables	Self-employed (147)		Paid employed (95)		Total (242)		
	Mean	SD	Mean	SD	Mean	SD	
Age of respondent	38.48	9.56	32.8	9.3	36.3	9.8	4.54***
Square of household heads' age	1571.2	829.1	1162.9	727.8	1410.9	814.2	4.03***
Household size	3.54	2.06	2.19	1.54	3.00	1.98	5.46***

*** is significant at less than 1% probability level. SD = standard deviation

Source: compute from own survey, 2016.

As presented in Table 5, out of the total sampled households, 39.26% of the respondents in the survey were found to be secondary school complete followed by primary educated (31.74%). The chi-square test showed that there was no a systematic association between self-employment decision of respondents and educational attainment of respondent at 10% level of significance.

Table 5: Sample respondents by level of education

Educational categories	Self-employed		Paid employed		Total (242)		χ^2 - value
	Freq.	%	Freq.	%	Freq.	%	
Respondent with primary education	40	27.21	30	31.58	70	28.93	1.48
Respondent with secondary education	56	38.10	39	41.05	95	39.26	
Respondent with tertiary education	51	34.69	26	27.37	77	31.81	

Source: computed from own survey, 2016. % = percent, Freq.= frequency

4.3. Economic Characteristics of the respondents

Equivalent to socio-demographic characteristics, respondent's basic economic endowments like inheritance, access to credit, and respondent's parent participation in self-employment were the most crucial factors to determine respondent self-employment decision in the study area.

As presented in Table 6, 65.70% of the total sample respondents' parents engage in self-employment business. The proportions of self-employed respondents whose parents participate in self-employment were 80.95%, while those of paid employed respondents whose parent engage in self-employment were 42.11%. The chi-square analysis showed that there was statistically significant disparity between self-employed and paid employed respondents regarding parents' occupation and found to be significant at less than 1% probability

level.

Out of the total sampled respondents, 13.22% of them had received inheritance from their family. The proportions of self-employed respondents who possessed inheritance were 18.37%, while those of paid employed respondents were 5.26%. The chi-square analysis showed that there was statistically significant disparity between self-employed and paid employed respondents with respect to possession of inheritance and found to be significant at less than 1 % probability level.

From the sample respondents 17.36% had obtained credit from different credit sources during the survey period. The proportion of respondents that received credit (loan) was 24.49% for self-employed and 6.32% for paid employed, respectively. The chi-square analysis revealed that there was statistically significant disparity between self-employed and paid employed respondents regarding access to credit and found to be significant at less than 1 % probability level.

Table 6: Distribution of sample respondents by economic endowments and risk tolerance

	Self-employed		Paid employed		Total (242)		χ^2 -
	Yes	No	Yes	No	Yes	No	
Parent participates in self-employment	80.95	19.05	42.11	57.89	65.70	34.30	38.64***
Inheritance	18.37	81.63	5.26	94.74	13.22	86.78	8.63***
Access to credit	24.49	75.51	6.32	93.68	17.36	82.64	13.29***
Risk tolerance	48.30	51.70	45.26	54.74	47.11	52.89	0.21

*** indicate significant at 1 % probability level. % = percentage

Source: compute from own survey, 2016.

4.4. Econometric results and discussions

The descriptive analysis results revealed that self-employed and paid employed respondent groups have statistically significant difference with respect to mean of the continuous variables such as age of respondent (age), square of the respondent's age (agesq), and household size (hsize). Categorical variables such as Parent occupation (paroccp), household assets (inheritance), access to paid employment (accpemp), and access to credit (acccredit) were also found to be statistically different for the two groups of sample respondents.

4.4.1. Evaluation of Assumptions

Before doing the description of the regression results, the assumptions held in the regression of the model under investigation treated first and then followed by analysis of model results and discussions.

4.4.2. Multi co linearity Tests

Multi co-linearity is a situation when two or more predictor variables in a regression model moderately or highly correlated or show little variation between them. The presence of multi co linearity detected by different methods, such as examining pair wise correlations among repressors, examining partial correlations, examining Eigen values and condition index, and variance inflation factors. This study applied the most widely used methods of detection, such as high variance inflation factor (VIF) and correlation matrix. In the regression outcome standard error are not so high, which indicates that the problems of multi co-linearity is, not sever. Correlation matrix is less than 0.8 and variance inflation factor also less than 10 with the exception of the correlation between age and age square, which is expected to be high logically. Thus, the problem of multi co-linearity is not an issue in this data.

4.4.3. Test for heteroscedasticity

Heteroscedasticity is a problem often encountered in cross section data and it occurs when the variance of the disturbance term is not constant as the value of independent variables varies. The study applied the Cook-Weisberg test for heteroscedasticity and the result indicates that chi2 (1) = 8.66 and Prob > chi2 = 0.0033. The significant result from the Cook-Weisberg test indicates that the regression of the residuals on the predicted values reveals significant heteroskedasticity which needs to be dealt with. In order to deal with the problem of heteroskedasticity, the robust estimation which that adjusts the z-statistics has been used.

4.4.4. Model Results

In order to identify the most important factors which determine self-employment decision of individual in the study area from the hypothesized potential variables, binary logit model was estimated by employing STATA Version 12.0 statistical package. The variables described above were used to estimate the logistic regression model by using the maximum likelihood estimation procedure.

As indicated in the Table 7 below, participation in self-employment s is influenced by variables age, age squared, education, household size, parent occupation, inheritance, access to paid employment, and access to credit. All these mentioned variables are found in line with our a priori expectorations.

Age and Age squared of the individual (age and agesqu): These variables are statistically significant. The variable age has statistically significant positive effect on self-employment decision of individual at 10% significance level. This may indicate that as age increases (up to certain limit) individuals tend to participate in self-employment s. This result also supported by the finding of [15, 10, 6]. While age squared a (proxy for old ages) has a significant and negative effect on self-employment and it is statistically significant at 5% significance level. This might be due to the reason that as aged goes up individual faces decreases in decision making capability. Consistent to this finding [16] argue that when individuals are older, wage-employment becomes more attractive than self-employment.

Education level of respondent (educ): In the model, respondent education level was categorized as primary education (educ1), secondary education (educ2) and tertiary education (educ3). The logistic result shows that ‘‘educ1’’ and ‘‘educ2'' have significant and positive influence on the self-employment decision of individual

with 5% and 1% probability level, respectively. However, the variable corresponding to tertiary school complete (some college completed, and college graduate), failed to be statistically significant. Thus, individuals with higher level of education are less likely to be self-employed than those with low level of education. This is also similar to the studies of [9, 6]

Household size (hsize): This variable is has a positive and significant effect on individuals' decision regarding self-employment . It is statistically significant at 5% significance level, and individuals with a larger household size have a larger probability of being self-employed than the individuals with having a smaller number of family size. Thus, the probability of self-employment rises as the household size increases. This positive relationship between self-employment status and household size is similar to the finding of [8].

Parent occupation (paroccp): Consistent with our expectation, the regression result shows that self-employed parents' occupation history/status has a significant and positive influence on the probability of becoming self-employed (at 5% significance level). The possible explanation is that when an individual has self-employed parents positively influences both preferences and self-employment status, with the effect being somewhat larger for actual self-employment . Not only do parents seem to inspire their children to become self-employed, there is also reason to believe that there is support for starting up (e.g., advice in terms of knowledge and experience about starting and managing businesses, or got financial support and relevant human capital necessary to start a business). The positive effect of self-employment history of parents on the probability of becoming self-employed may also be an indicator of children taking over the firm of the parents in case of a family business. This is also similar to the studies of [7, 1]).

Presence of Household Assets (inheritance): The coefficient of presence of household's assets is statistically significant at the 5 % significance level and has a positive effect on individuals' decision regarding self-employment . Individuals who receive an inheritance are more likely to become self-employed than others. This is also similar to the studies of [11, 7, 20, 15].

Access to paid employment (accpemp): The coefficient of individual involvement in paid employment is negative and statistically significant at less than 1% significance levels. The finding shows that lack of job opportunities in the public and private sector enables to make self-employment decision. In other words, individuals with access to paid employment are less likely to participate in self-employment business. This negative relationship between self-employment status and access to paid employment is similar to the finding of [27].

Access to credit (acccredit): Access to credit is another important variable which affects the individual self-employment decision positively and significantly. The access to credit enables the individuals to minimize their financial constraints and helps to start their business. The coefficient of access to credit is statistically significant at 5% significance level. Furthermore, good access to credit also increases the probability of individuals to becoming self- employed. Hence, financial resource is the lifeblood of business operations and precondition to make the business start up decisions. Therefore, having sufficient access to credit can improve individual's choice for self-employment over paid employment. This result is consistent with the findings of [12, 15, 1].

Table 7: Logistic Regression Estimates for participation in self-employment

Dependent variable: Self-employment participation			
Explanatory Variables	**Coefficients**	**Robust Standard Error**	**P>|z|**
Gender	0.2047	0.4121	0.619
Age	0.2834	0.1572	0.071*
Age square	-0.0045	0.0021	0.029**
Marital status	0.2024	0.7701	0.793
Primary Education	4.0898	1.3423	0.002***
Secondary Education	2.7142	1.2093	0.025**
Tertiary Education	1.3978	1.1512	0.225
Household size	0.7384	0.33362	0.028**
Self-employed parents	0.9602	0.4049	0.018**
Inheritance	1.7574	0.7230	0.015**
Access to paid employment	-1.6707	0.44413	0.000***
Access to credit	1.6707	0.7875	0.034**
Risk Tolerance	0.6919	0.4445	0.120
_cons	-9.1935	3.2259	0.004
Number of obs = 242	Wald chi2 (13) = 53.01	Prob > chi2 = 0.0000	
Log pseudo likelihood =	-97.569265	Pseudo R2 = 0.3981	

5. Conclusions

This study was set out to investigate the determinants of self-employment depending on the sample of 242 respondents drawn from four towns of west shoa zone, Oromia region, Ethiopia.

Both descriptive analysis and econometric estimation results have been used to answer the stated research questions and test the hypothesis developed. Based on the findings that were obtained from the study the following conclusion could be drawn.

The result of the study shows that about 61 percent of the sampled respondents participated in self-employment s. The result also reveals that no significance difference in the level of participation in self-employment between the male and female respondent groups.

The study concludes that the age of the respondents, educational attainment, presence of self-employed parent, inheritance and access to credit has positive effect; whereas age square, access to paid employment appear to be negatively important determining factors in terms of individual decision to become self-employed . Given this, studying the determinants of self-employment is essential by way of informing concerned parties which factors is important in encouraging self- employment.

6. Recommendation

In light of the above findings and discussion of the study, the researcher propose the following recommendations to public policy-makers, academicians, credit and saving institutions, development practitioners, for individuals who want to be self-employed /entrepreneur and others concerned parties:

Unlike of the tertiary level educated individuals, the less educated individuals (with primary and secondary level education) do most situated to participate in the self-employment activities in the study area. Better education would contribute a lot for establishing sustainable and successful business organizations which enable to understand the outside world and equips her/him with the basic knowledge and a skill to deal with the day-to-day problems despite the result is different in the study. Hence, fostering self-employment among the higher education graduates would bring competition; promote innovation and creativity, increase productivity and effectiveness in self-employment business. In realizing this, policy makers and academics need to work together towards creating or promoting entrepreneurial cultures, skills and interest among the graduates and the society in general.

In relation to access to paid employment promoting and recognizing successful business persons to others as role model would encourage others to find their ways, increase motivation among the society members to work for one's own and ultimately move in to self-employment activities. Self-employment likelihood would be improved by arranging capacity buildings (business awareness creations programs and communicating available business opportunities to enhance business ownership interest of individuals); and encourage people to favor for self-employment as an alternative of livelihood to unemployment.

Self-employment and Entrepreneurship promotion require increased access to credit by strengthening financial infrastructure, bank and nonbank financing. The financial sector in Ethiopia typically has insufficient banking skills for dealing with self owned micro enterprises and the cost of small-scale lending are high. Launching sufficient numbers of micro finance institutions which can avail financial resources and improved loan advancing service s for individuals who attempt to establish their own business will be essential. Likewise, improving the conservative lending practice of the banks would improve the credit access of individuals. Individuals‟ access to credit can be fostered by strengthening the existing micro finance institutions in terms financial capacity, sustainability and accessibility.

Self-employment should be recognized as an important means of providing the poor with a decent livelihood alternative and deserving of support so that the self-employed can escape from poverty. Government should support the newly emerging businesses by giving capacity building trainings and creating access to market and also by providing financial incentives for the creation of business.

Generally, well understanding of self-employment determining factors is important and key to formulation of sound policies in the area by government and designing of appropriate intervention strategies by government, non government and other development practitioners in order to promote self-employment and entrepreneurship among the society thereby reduce unemployment rate and improve

livelihood status of individuals and the society in general in the study and nearby areas.

7. Limitation of the Study

Though, the study will pave ways for other scholars to undertake intensive research on the issue, it was not free of limitations. Firstly, the researcher has encountered tackles in getting accurate secondary data with regards to self-employment status in the areas. Secondly, associated with limited finance, the study was not comprehensive in that it doesn't consider all towns in the west shoa zone which might have specific characteristics to the topic under study.

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